

Video Scalers



Two sharp ways to show a TV signal on a monitor, LCD, or plasma projector.

FEATURES

- Both models provide scaling to multiple output resolutions.
- Selectable output vertical refresh rates enable the brightest, flicker-free images.
- Advanced motion compensation when deinterlacing input video.
- Support wide-screen and letterbox images.
- Switchable composite and S-Video inputs. The AC217A also supports component video input and RS-232 remote control.

OVERVIEW

Our Video Scalers convert standard TV video to non-interlaced, high-resolution images that exactly match the native resolution of any HDTV, DTV, or plasma projector.

What is interlacing?

A TV video signal is interlaced, meaning each full screen of information is actually made up of two separate fields—the odd field and the even field. First, the odd lines are painted on the screen. Then, before the odd lines fade, the even lines are painted in between the odd lines. This all happens faster than the human eye can perceive.

In contrast, the computer signal is non-interlaced—the horizontal lines are painted progressively, left to right, top to bottom, in a single pass. So the flickering problem you get in interlaced TV does not exist in computer video.

Line doublers and quadruplers were developed to convert interlaced TV signals to non-interlaced computer signals. However, when compared to line doublers or quadruplers, both video scalars offer several clear advantages:

- When using a video scaler, a projector or display device is not forced to crop, distort, or further process the image in order to display it.
- The video scalars can provide outputs at multiple refresh rates. For example, a video scaler can display converted PAL video on projectors that don't support 50-Hz refresh rates. Or converted video can be displayed at 75 Hz, eliminating flicker.

- The video scalars are not limited to a 4:3 aspect ratio—they can display letterbox-formatted video, too (16:9 aspect ratio).
- With a video scaler, projectors and displays no longer have to reprocess the output of a doubler or quadrupler to match their own native resolution, so the final displayed image is sharper.

Video scaling the intelligent way.

The Intelligent Video Scaler represents the next generation in our video scaler solutions. It incorporates support for component video input and output, lockout function of front-panel controls, and RS-232 remote control of all functions.

Like the Advanced Video Scaler, the Intelligent Video Scaler eliminates on-screen artifacts (such as black lines) associated with line doubler conversion. It also features selectable output resolutions and aspect control ratio.

Technically Speaking

The Advanced Video Scaler and Intelligent Video Scaler convert images from a TV screen onto a computer monitor, LCD, or plasma screen. Here's more about how they work.

Types of signals.

TV video is defined by either the NTSC, PAL, or SECAM standard, which dictates the number of lines in the picture, how the color information is defined, and the speed with which the lines are painted on the screen (refresh rate). But within NTSC, PAL, and SECAM, there are several formats that meet these standards. Composite video is most commonly used, with video information for red, green, and blue (RGB) and sync combined into a single signal. S-Video, which separates the chrominance (color) from the luminance and sync information, provides a superior picture.

AC217A also supports component video, which carries the color and brightness portions of the video signal as separate signals. This provides superb color clarity and reduced color bleeding.

How they work.

The Video Scalers will accept any video source, de-interlace it with proprietary, advanced motion compensation, and then intelligently scale it to the desired resolution with virtually no artifacts. All you need to do is set the output resolution to match the native resolution of the connected LCD, DLP, or plasma projector or display.



AC215A

TECH SPECS

Controls — AC215A: Contrast, brightness, color, saturation, hue, horizontal and vertical positioning;

AC217A: Input selection, output resolution, input to output aspect ratio conversion

Input Decoding — AC215A: 8-bit Y, 8-bit C, and 16-bit YUV with comb-filter processing;

AC217A: 16-bit YUV with adaptive 4H comb-filter processing

Input Formats — Normal (4:3), Letterbox (16:9)

Input Types — AC215A: Composite and S-Video (Y/C), both terminating into 75 ohms;

AC217A: Composite, S-Video, (Y/C), both terminating into 75 ohms, component

Input Video Standards — AC215A: NTSC, NTSC-Japan, PAL (B, D, G, H, I, M, N, N-3.58), SECAM;

AC217A: NTSC, PAL (B, G, H, I)

Output Resolutions — AC215A: 640 x 480, 800 x 600, 832 x 624, 852 x 480, 1024 x 768, 1280 x 1024 (60 Hz only);

AC217A: 480p, 720p, 1080p, 1280 x 1024, 1366 x 768

Aspect Ratio Conversion — AC217A: 4:3 to full screen, 4:3 to 4:3 in 16:9 screen, 16:9 to 16:9

Switch — AC217A: Selects output format for RGBHV, RGBS, or YCBCR

Connectors —

AC215A:

Input: (1) Composite: BNC F; S-Video: (1) 4-pin mini-DIN F;

Output: (1) HD15 F with standard VGA pinout, (5) BNC connectors configurable as RGBHV, RGBS, or RGSB (RGB Sync on Green);

AC217A:

Input: (1) Composite: RCA F; S-Video: (1) 4-pin mini-DIN F;

Component: (3) RCA F;

Output: (1) HD15 F standard VGA pinout;

RS-232 remote: (1) 3-pin screw terminal

Power — AC215A: 95 to 250 VAC, 47 to 63 Hz, autosensing, external;

AC217A: 85 to 265 VAC, 47 to 63 Hz, autosensing, internal

Size — 1.5"H x 7.3"W x 8"D (3.8 x 18.5 x 20.3 cm)

Weight — AC215A: 3 lb. (1.4 kg);

AC217A: 2 lb. (0.9 kg)

Item	Code
Advanced Video Scaler	AC215A
Intelligent Video Scaler	AC217A

For optimum performance and a 20% savings, order...

VGA Video Extension Cable

(Specify length, PVC or plenum construction, and gender when ordering)

EVNPS05

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